Polygamous Flowers in Populus.—On the 7th of April I found a few pistillate aments of *Populus tremuloides* with both kinds of flowers, and on fast-day (the 11th inst.,) I found four small sized female trees that were more or less polygamous.

On one of these trees nearly every ament that I examined had perfect flowers in addition to the regular pistillate ones. In one instance the stigma was partially covered with pollen from the open anther which was apparently just in the act of discharging its pollen.

The number of stamens in these flowers varied from one to four. Usually two, or three, but sometimes four stamens were arranged around the pistil, the disk being enlarged for their accommodation.

I do not remember to have seen anything of this kind mentioned before in connection with this genus, but Prof. Goodale tells me that Mr. Bailey has noticed it in *Populus balsamifera*, near Providence, R. I., and Mr. Watson, to whom I communicated my specimens, says it has occurred among the willows.

In looking at the poplars soon after some recent cold rains I noticed that those buds which had pushed out the earliest, were so much injured that they would drop off almost at a touch. *Populus tremuloides*—the sterile aments—was in full bloom in Medford on the 29th of March, and *P. grandidentata* the following week.

It is gratifying to know that this genus is to be worked up anew by one so fully competent for the task as Mr. Watson, and that all confusion is likely to be cleared away, and the different species clearly and accurately defined.—Geo. E. Davenport, *Medford, Mass.*

On the Distribution of Certain Plants in Missouri; By G. C. Broadhead, of Pleasant Hill, Mo.—*Aquilegia Canadensis*, L., may be found early in the spring on shaded limestone hillsides in various parts of the State.

Aquilegia Canadensis var. *alba*, a rare and pretty plant was found on limestone slopes in Jackson county.

A. Canadensis, L., a pale yellow variety was found in Buchanan county.

Anemone Pennsylvanica, L. Found on Missouri bottoms from St. Louis county to Atchison county. On the upland and lowland prairies of Atchison and Holt counties it is very abundant, but in North Missouri I have not elsewhere observed it.

Anemone Caroliniana, Walt. From Cass county south along the western border of the State. It is found on prairies west and south. A purple variety is sometimes found in Cass and Bates counties. Dr. Engelman states that this closely resembles the European *A. stellata*. This is one of our earliest and prettiest flowers.

Hepatica triloba, Chaix. Only seen in Central and Eastern Missouri, on rocky and shaded hillsides.

Cocculus Carolinianus, DC. From Cole to Vernon and southwardly.

Brasenia peltata, Pursh. On ponds of Barton and Jasper.

Nymphæa odorata, Ait. Have only seen this beautiful and fragrant water plant in Vernon and Barton.

Nuphar advena, Ait. On ponds of Vernon and Bates. This is also quite common in Central Illinois.

Corydalis crystallina, Engl. From Cass southwardly; sometimes very abundant, especially on sandy slopes and rich prairie mounds. In North Missouri I have also found it in Livingston county, and it may occur at other localities in that district.

Cleome integrifolia. Found in Clay county, and also at Leavenworth, Kansas. Introduced from far West.

Viola pedata, L. Birds-foot violet or velvet violet. Rare in Western Missouri, but common on dry ridges in Eastern Missouri. Is very pretty.

Silene regia, Sims. In Jasper, Maries, Cole and southwardly. A rich crimson flower growng on thin rocky soil or oak barrens.

Talinum teretifolium, Pursh. Is nowhere common, but I have found it in many counties in South Missouri from St. Francois to Cole, Cass and Newton.

Callirhoe digitata, Nutt. Found in Lawrence and Jasper, on limestone soil where it is very abundant. In Barton county, just north, it is not found, but as soon as we leave its sandy soil and touch the limestone slopes of Jasper, the graceful and beautiful *Callirhoe* makes its appearance.

Polygala Nuttallii, T. & G., is common from Bates southwardly, but northwardly is very rare.

Polygala incarnata, is not common, but occasionally is found on the prairies.

Ptelea Trifoliata, L. From Cole northeast and Vernon south and east.

Hypericum ——? a species with globose head, is common in Eastern Missouri; does not occur in northwest, but is again found in Barton and southwardly.

Vitis riparia, Mx. The river grape grows along all the principal streams, ascending to the highest trees. A variety grows on prairie valleys and rugged limestone hillsides and on fences in fields in Northwest Missouri. On rich ground the berry is often sweet and good, in other localities it sometimes possesses a slightly bitter taste. It often ripens very irregularly on the same bunch. A berry being quite ripe while others may not be half grown. The berries are generally close on the bunch. This variety is often called slough grape.

A *Vitis*, not in Gray, although sometimes called Muscadine, is often found in Southern Missouri, also rarely found in one or two counties in eastern part of North Missouri, along rocky streams, berry ripening in August.

Rhamnus Caroliniauus, Walt., I have only seen in Madison county.

Acer rubrum, L. Red maple, common on ridges and near streams in southeast Missouri. In North Missouri it has only been observed in Calaway county.

Tephrosia Virginiana, Pers. In Johnson, Bates and southwardly, and probably in Southeast Missouri.

Psoralea esculenta, Pursh. In Bates and southwardly on prairies. Root edible.

Psoralea melilotoides, Michx. In Vernon on prairies.

Vicia Americana, Muhl. In Bates, Platte, and in Northeast Kansas.

Clitoria Mariana, L., I have only found on dry pine ridges in Southeast Missouri.

Oxytropis Lamberti, Pursh. Only have seen it on bare bluffs in Atchison county in the extreme northwest, associated with *Pentstemon grandiflora*.

Prunus Virginiana, L., Choke cherry, is occasionally found in North Missouri north of the Hannibal & St. Jo. Railroad; also in the southern part of Buchanan, near Grand Pass, Saline county, but no further South.

Prunus Chicasa, Michx. Is not found in northwest Missouri, but abounds in St. Charles; is occasionally found in Saline, Lafayette and Bates, but is more common southwardly.

Prunus Americana, Marsh. There are several varieties of this plum; it is generally common throughout the northern part of the State. The fruit of this and the last is much valued. A variety with hard and acerb fruit and of no value is often found.

Neillia opulifolia, Benth & Hook. Nine-bark or seven-bark abounds in Eastern Missouri a little west of Jefferson City, thence through Henry, Vernon and southwardly, but is not found in northwest.

Potentilla Norvegica, L. I have only observed a single plant in Montgomery Co.

Rosa Caroliniana, L. I do not know that this rose is certainly found in Missouri, but I have seen a species (not in bloom) in Madison that may be it.

Rosa ——? I have found a species in Warren, Reynolds and Madison free from prickles, but have not seen it in blooom.

Cratægus, L. At least six or eight species are found in Missouri.

Œnothera sinuata, L., I have only found on sandy slopes in Vernon.

Œ. serrulata, Nutt. Found on "Bluff" hillsides in Atchison county.

Œnothera speciosa, Nutt. This showy plant is one of our handsomest when in bloom with its large pure white blossoms, but is only found on the western border of Missouri where it ranges from Jackson county southwardly.

Œnothera Missouriensis, Sims. This plant with its large handsome bright yellow corolla I have found on rocky slopes on prairies in Bates, and also in Green and Lawrence counties.

Ribes Cynosbati, L. A gooseberry with fruit armed with long prickles like a burr have found on rocky bluffs of Missouri, in Gasconade county, where there was but little soil.

Sedum stenopetalum, Pursh. Have only found this on cherty glades at Grand Falls, Newton county.

Hamamelis Virginica, L. Only in southeast Missouri where it is abundant.

Aralia spinosa, L. Hercules' club. Only found in southeast Missouri, ranging from Madison county southward. It is commonly called "Tear blanket."

Cornus Florida, L. Flowering dogwood. Not found much further west than Jefferson City. Common eastwardly on dry hills. Further west is not found north of Jasper county. In Northeast Missouri is rarely found west of the extreme eastern counties.

Cornus circinata, L., Her. Round leaved dogwood. Found only in eastern Missouri on rich moist hillsides.

Liquidambar Styraciflua, L. Sweet Gum. Common in Southeast Missouri, occurring from Madison county southwardly.

Nyssa multiflora, Wang. Black Gum. Common in Southeast Missouri. A few trees only have been seen in Maries county. It does not occur in Western or Northern Missouri. In Southern Illinois it is found no further north than the southern part of Fayette county. *Nyssa multiflora*, Wang., Tupelo or Sour Gum, and *N. uniflora*, Walt., the large Tupelo, are both said to abound in the swamps of Southeast Missouri.

Viburnum dentatum, L. Arrow wood. Is occasionally found in Monroe and Shelby counties, but neither in Northwest nor Southwest Missouri.

Fedia radiata, Michx. Bates county and southwardly.

MONOTROPA UNIFLORA, L.—In the April number of the BOTANICAL GAZETTE I noticed with considerable surprise a statement made by Mr. A. H. Young, of LaFayette, Ind., that *Monotropa uniflora*, L., or Indian Pipe, Ice-plant, Fit-plant so-called, possessed poisonous properties somewhat resembling the effects of *Rhus Toxicodendron*, L. Now this is certainly news to me, and which cannot fail to interest many others engaged in the study of Medical Botany. I am constrained to say, and an experience of twenty-three years of closest attention to this subject has verified my conclusions, that *Monotropa uniflora* is not possessed of any toxic properties, neither in its outward or inward application of the human system. It is a remedy of some repute with the Eclectic School of Medicine, and in "King's American Dispensatory" and "Howard's Botanic Medicine," is very highly recommended for overcoming nervous irritability, epilepsy, chorea, etc., when used in large doses inwardly of course, and for ophthalmic as well as other inflamations of delicate mucous surfaces outwardly applied, either in its fresh state or the preserved juice. I have myself used it very much in ordinary cases of inflamed eyes, both chronic and acute, and have never seen or even before heard any evil effects following the most indiscriminate use. Have applied it to the eyes of infants when only three days old, in *Ophthalmia purulenta infantum*, as well as in old age in